

### Sectoral change

#### Employment impact of structural change

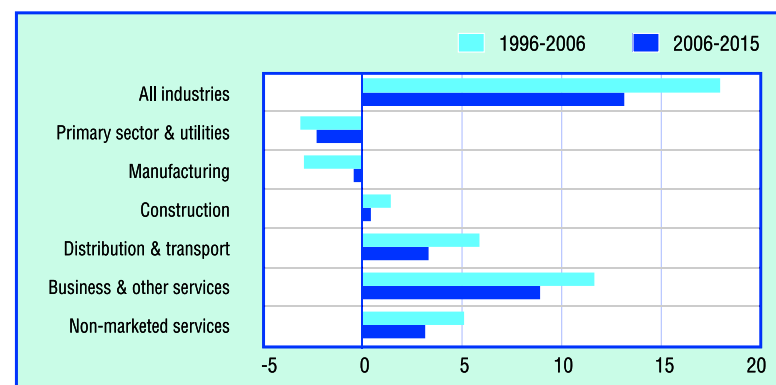
Europe has experienced considerable structural change over the past few decades resulting in continuing shifts away from the primary sector (especially agriculture) and traditional manufacturing towards services and knowledge-intensive jobs. Cedefop's medium-term forecast of occupational skill needs in Europe for 2006-15 suggests these trends will remain a key feature in the coming decade.

#### Evolutionary process

EU enlargement increased diversity in sectoral employment patterns. Many newer Member States still rely to a much greater extent on agriculture and manufacturing than do older Member States. But the evidence is that this is changing rapidly, as many countries catch up and restructure their economies. In part, this is an internal process, particular to each country. However, it also reflects shifting patterns of both activities and people across borders, as capital and labour adjust to the new political and economic situation. Results suggest that this change will be evolutionary rather than revolutionary.

#### Employment trends by broad sectors (change in millions), 1996-2015, EU-25, Norway and Switzerland

Source: Cedefop, 2008



#### 13 million more jobs in 2015

Substantial change is in prospect. In total, EU-25 (the EU Member States, excluding Bulgaria and Romania, for which data are not yet available) plus Norway and Switzerland expect to see a net increase of more than 13 million jobs between 2006 and 2015. This is despite losing well over 2 million jobs in the primary sector and half a million in manufacturing. The distribution and transport sector, including hotels and catering, will create more than 3 million jobs in the coming decade, while employment in non-marketed services, including health and education, is projected to grow at a similar rate. The best prospects for employment lie in business and miscellaneous services with almost 9 million being created.

#### Sectoral change and mobility needs challenge policy

Alternative scenarios, one negative, the other more in positive outlook, suggest that the overall increase in jobs will be between 7.5 million and 17.5 million jobs. Broad patterns by sector are not too sensitive to these alternatives. In the pessimistic scenario manufacturing may lose 1.3 million jobs, and grow modestly in the optimistic one.

However, primary and manufacturing sectors will remain important areas of employment and crucial components of the economy – but their skill requirements will also change. The primary sector will still employ almost 10 million people by 2015 and manufacturing 35 million.

All in all, labour market policy will face enormous challenges to cope with structural change, and occupational and sectoral mobility needs. This includes adapting workforces and skills to new requirements by retraining and continuing training – in particular of adults and people at risk of unemployment. Against this background implementation of lifelong learning strategies and policies to reconcile flexibility and security take on a new dimension.

### Prospects for occupations and qualifications

These trends are likely to be reinforced by changes in the way work is organised and jobs are performed due to technological and organisational change, and other factors. The implications for occupational employment are for continuing growth in demand for many highly and medium-skilled workers, but also for some lower-skilled categories. In 2006 just fewer than 80 million of the 210 million people employed in Europe were doing high-skilled non-manual jobs such as management, professional work or technical support of those activities. Demand in all these areas is expected to increase in the coming decade. This is also true for elementary occupations.

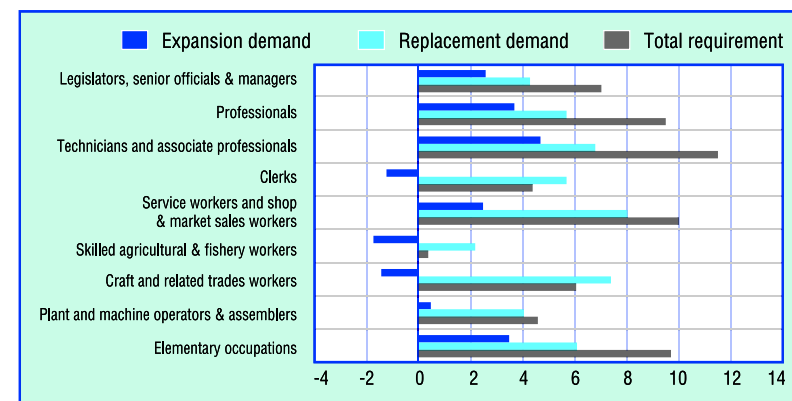
#### Growing demand for the highly and medium-skilled

#### Losses offset by replacement demand

It is important to recognise that even in areas where employment is expected to fall there will still be significant numbers of job openings and needs for education and training. This is reflected in estimates of replacement demand by occupation. While the projections suggest job losses for a number of occupational categories, in particular for clerks and some skilled manual occupations, in all cases these losses are more than offset by the estimated need to replace most of those leaving because of retirement or other reasons. Of course the nature of these jobs and their skill requirements will change.

#### Demand by occupation, broad groups (change in millions), 2006-15, EU-25, Norway and Switzerland

Source: Cedefop, 2008

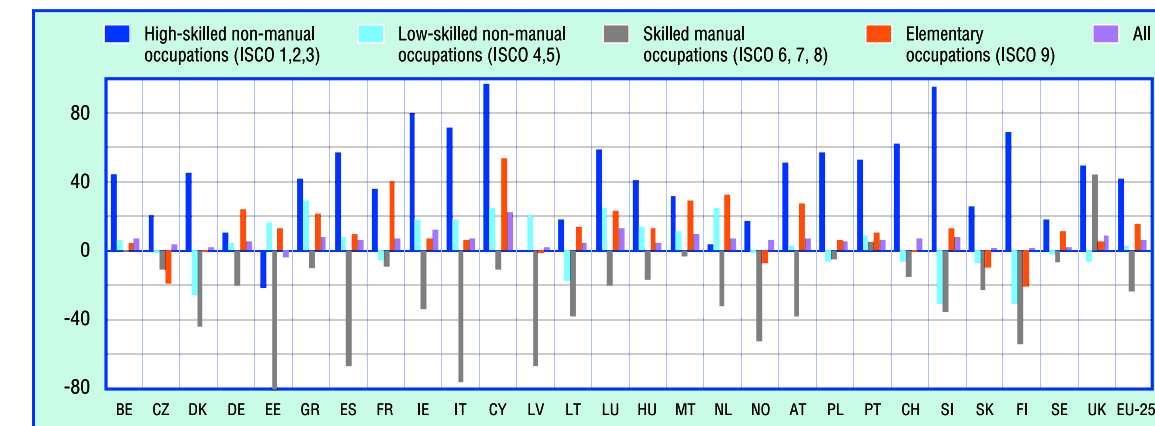


#### Policies to prevent skill mismatch

These results reinforce the need to explore in more detail working conditions, skill and competence requirements and profiles of both precarious and knowledge-intensive job segments. They also emphasise that policy-makers need to initiate measures in time to prevent, or at least alleviate, risks of skill mismatch – shortages as well as surpluses. Consequently, projected occupational change has policy implications not only for education and training, guidance and counselling, active and passive labour market measures, but also for migration, workforce mobility and social policy... This calls for improved governance as well as cooperation of all actors involved, including the social partners.

#### Employment growth by country and occupation (change in %), 2006-15, EU-25, Norway and Switzerland

Source: Cedefop, 2008

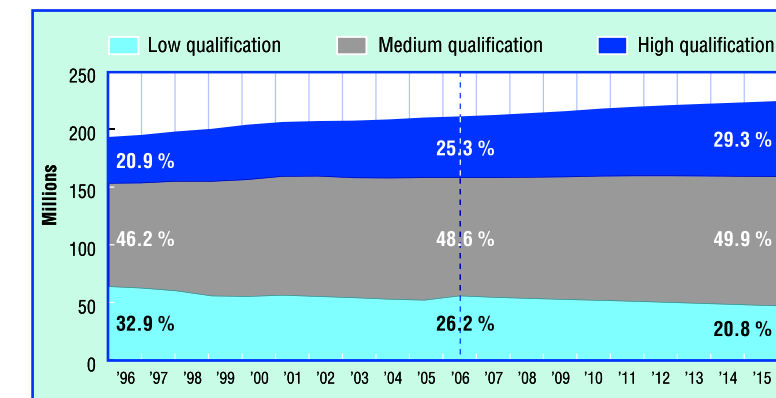


#### Jobs require more medium and high qualifications

Qualification requirements across most jobs will increase dramatically. The total employment increase in Europe between 2006 and 2015 comprises more than 12.5 million additional jobs at the highest qualification level and a further almost 9.5 million jobs at medium level, including vocational qualifications. However, jobs for those with low qualifications will fall by 8.5 million. In 2015, around 30 % of jobs will need high qualifications, and 50 % medium qualifications. The demand for low qualifications will fall from a third in 1996 to around 20 %.

#### Qualification requirements by level of qualification (in millions, %), 1996-2015, EU-25, Norway and Switzerland

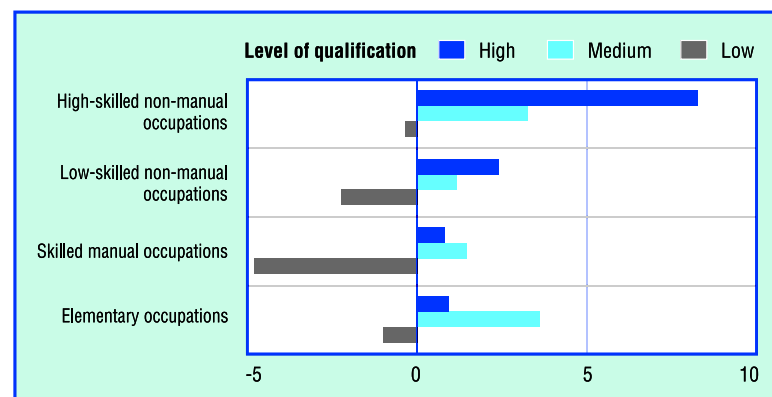
Source: Cedefop, 2008



Qualification requirements are expected to increase in all occupational groups at the expense of low-skilled workers. High qualifications will be needed most in non-manual occupations. More and more medium qualifications will be required in skilled manual occupations. However, higher and, in particular, medium qualifications will be increasingly required in elementary occupations, which include mostly simple and routine tasks and only limited personal initiative and judgement.

**Net employment change (in millions), 2006-2015, by occupational groups and highest level of qualification, EU-25, Norway and Switzerland**

Source: Cedefop, 2008



Some changes reflect the expected continued growth in supply of people with formal qualifications. While there is the possibility of oversupply in some areas, there is also considerable evidence that the changing nature of job requirements will increase the need for formal qualifications in many areas.

#### Further analysis needed

The forecast concludes that the trend of increasing skill requirements is unbroken, with high job gains for highly and medium skilled workers – including those with vocational qualifications - and substantial job losses for the lower skilled. However, the results differ by countries, sectors and occupations – thus requiring further research and analysis. This should also indicate points of reference for proactive education and training policies to prevent unwanted developments, such as skill mismatches. It is important to emphasise that there is considerable scope for improvement of the methods and data used.

#### Continuing dialogue ...

#### Need for constant dialogue

As with all quantitative projections, a considerable amount of expertise and judgement is needed to develop robust and credible results. This must involve experts and stakeholders from individual countries as well as at European level to bring their unique knowledge and expertise relating to data, trends and political strategies for employment and socioeconomic development.

#### ... towards a European skills forecasting system

#### Matching skill needs and supply

Cedefop will continue this work by regular updates and further methodological and data improvements, complementary forecasts of skill supply and analyses of possible labour market imbalances.

#### Better labour market information and intelligence

The dynamics of change in the workplace strengthens the need for timely and reliable information on how skill needs develop. Information on future skill and competence needs in Europe is essential for employers and individuals, as well as for effective labour market policy-making at national and European levels. Such information cannot be obtained by purely quantitative forecasting methods. They need to be enriched by other sources of information.

Therefore, in parallel to quantitative measurement at macro level, Cedefop, supported by its network Skillsnet, is exploring the feasibility of identifying skill and competence needs at the workplace using enterprise surveys. Skillsnet will also continue to anticipate new and emerging skill needs in specific sectors.

#### Source:

Cedefop. *Future skill needs in Europe. Medium-term forecast: synthesis report*. Luxembourg: Office for Official Publications of the European Communities, 2008.

#### Further information

Cedefop's Skillsnet team:

<b>Alena Zukersteinova</b>	alena.zukersteinova@cedefop.europa.eu
<b>Torsten Dunkel</b>	torsten.dunkel@cedefop.europa.eu
<b>Manfred Tessaring</b>	manfred.tessaring@cedefop.europa.eu

Skillsnet is Cedefop's international network on early identification of skill needs. Become a Skillsnet member with privileged access: <http://www.trainingvillage.gr/etv/skillsnet/>

